

REMARKS

Status of the claims

Claims 1-14 are pending in the application, with claims 5-14 being withdrawn.

Statement of the Substance of the Interview

Applicants would like to thank the Examiner for her time and consideration of Applicant's explanation of the instant invention and prior art teachings during the interview of August 25, 2009. As noted in the Interview Summary Record, Applicants' representative explained the nature of the invention, including the recited step of forming a covalent bond between the photoreactive compound and the small molecule through the irradiation and Applicants' representative further explained that MacBeth et al. fails to teach or suggest such a step.

Rejections under 35 U.S.C. §§ 102 and 103

Claim 1 has been rejected under 35 U.S.C. § 102(b) as being anticipated by MacBeth et al. Claims 3-4 have been rejected under 35 U.S.C. § 103 as being obvious over MacBeth et al. combined with Holmes. As with the restriction requirement of December 22, 2008, the Examiner bases the rejections on the disclosure in MacBeth et al. of low molecular weight compounds that would allegedly inherently have the ability to bind to a photoreactive compound and the use of Cy5-conjugates as a photoreactive compound. Applicants traverse this rejection and withdrawal thereof is respectfully requested.

The instant invention, as encompassed by claim 1, is directed to:

A method of fixing a low-molecular compound on a solid-phase support, comprising the steps of:

- (1) bringing a solution containing a low-molecular compound into contact with a solid-phase support having a photoreactive compound bonded to the surface;
- (2) evaporating to dryness the solution containing the low-molecular compound in the state of being in contact with the solid-phase support; and
- (3) irradiating the solid-phase support with light to form a covalent bond between the photoreactive compound and the low-molecular compound.

As explained during the interview, MacBeth et al. fails to disclose, either explicitly or inherently, the steps of claim 1.

MacBeath et al. discloses a conventional fixing method, as discussed on page 1, lines 15-20 of the specification. With such a conventional fixing method, all of the low molecular weight compound is required to have a functional group, such as a hydroxyl or amino group. In MacBeath et al., the low-molecular weight compounds are fixed by the functional group. MacBeath et al. does not disclose or suggest any photoreactive compound. The nature of the method of MacBeth et al. is explained in the right hand column of page 7967. The reference teaches that small molecules (e.g. biotin) were attached to beads via a 6-aminocaproic linker group. The small molecules also had a reactive group. The beads were further prepared with thiol-derivatized tetramethylrhodamine, to be able to create a reference label. The small molecule and tetramethylrhodamine were cleaved from the beads and reacted with maleimide-derivatized slides. To probe the slides, Cy5-labeled streptavidin was reacted with the biotin. The slides were irradiated for the purpose of detecting the location on the slides of the tetramethylrhodamine reference and the biotin/streptavidin conjugates. Neither the Cy5 nor the tetramethylrhodamine were in any way used in MacBeth et al. in the formation of a covalent bond. As such, the instant invention is not anticipated by MacBeth et al. and withdrawal of the rejection is respectfully requested.

The Examiner further points to Holmes for the rejection of claims 3-4 as being obvious, with the assertion that Holmes teaches the photoreactive compounds of these claims. However, as discussed above, the instant invention requires in step 3, the formation of a covalent bond upon irradiation. Holmes fails to teach or suggest the formation of a covalent bond through irradiation, much less the fixation of a low molecular compound to a solid support through the formation of such a covalent bond. The photoreactive compounds of Holmes on the other hand, are cleaved upon irradiation. See, for example, the description of Figures 2A-2D in column 2, lines 47, wherein it is stated that "FIGS. 2A-2D illustrate the results achieved by removal of two thiazolidones from a resin via photolysis." (emphasis added). In addition, see column 12, lines 6-8, which state, "In another aspect, the present invention provides novel compounds which are useful as photochemically cleavable linking groups." As such, the instant invention is neither

achieved by nor suggested from the combined disclosures of MacBeth et al. and Holmes and withdrawal of the rejection is respectfully requested.

Rejoinder of claims 5-14

The Examiner maintained the restriction of claims 5-14 on the basis that the claims did not share a common technical feature. The Examiner relied upon the teachings of MacBeth et al. in support of the restriction. However, as demonstrated above, the claims do possess a common technical feature that is neither taught nor suggested by MacBeth et al. As such, rejoinder of claims 5-14 is respectfully requested.

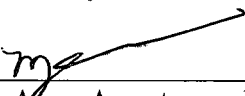
In view of the above amendment, Applicants believe the pending application is in condition for allowance.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact MaryAnne Armstrong, PhD, Reg. No. 40,069, at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

By 

MaryAnne Armstrong, PhD
Registration No.: 40,069
BIRCH, STEWART, KOLASCH & BIRCH, LLP
8110 Gatehouse Road
Suite 100 East
P.O. Box 747
Falls Church, Virginia 22040-0747
(703) 205-8000
Attorney for Applicant